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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,442	06/19/2000	Matthew R Perkins	CM03017J	4005

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EXAMINER

LY, NGHI H

ART UNIT PAPER NUMBER

2682

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/596,442

Applicant(s)

PERKINS ET AL.

Examiner

Nghi H. Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/30/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (US 5,666,655).

Regarding claim 1, Ishikawa teaches a method for accessing a radio communication system having a plurality of radios (see column 4 lines 54-57), comprising the steps of: (a) separating the plurality of radios into two or more groups (see column 22 lines 18-20), (b) gathering a communication statistic on the plurality of radios (see column 22 lines 18-22, in Ishikawa, the distances, the moving directions, and the moving speeds of the mobile station reads on applicant's **statistic**) and c) grouping of radios based on the communication statistic gathered in step (b) (see column 22 lines 18-22).

Ishikawa does not specifically disclose reconfiguring the grouping of radios. However, since the *distances, the moving directions, and the moving speeds of the mobile station* in the system of Ishikawa varies at time, it would have been obvious to one of the ordinary skill in the art to modify Ishikawa such that the group of mobile units

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are reconfiguring, so that the groups can be associated with the *changing distances, the moving directions, and the moving speeds of the mobile station*.

Regarding claim 2, Ishikawa further teaches comprising the step of: (d) allowing access to the radio communication system based on the grouping of the radios (see column 22 lines 18-22).

Regarding claims 3, 4, 5 and 17, Ishikawa teaches the communication statistic gathered in step (b) comprises the changing distances, the moving directions, and the moving speeds of the mobile station by each of the plurality of radios (see column 22 lines 18-22). Ishikawa does not specifically disclose communication statistic gathered in step (b) comprises the average channel usage, channel accesses per unit time, priority and talk-time by each of the plurality of radios. However, those skills in the art would have appreciated that the system of Ishikawa also be used with other statistic such as average channel usage, channel accesses per unit time, priority and talk-time by each of the plurality of radios. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Ishikawa, so that the communication statistic comprises more features.

Regarding claim 7, Ishikawa teaches steps b and d. Ishikawa inherently teaches repeating steps (b) through (d) periodically (see rejection of claim 1 above). Since *the distances, the moving directions, and the moving speeds of the mobile station* in the in system of Ishikawa varies at time, it would have been obvious to one of the ordinary skill in the art to modify Ishikawa such that repeating steps (b) through (d) periodically, so

that the groups can be associated with the *changing distances, the moving directions, and the moving speeds of the mobile station* (see column 22 lines 18-22).

Regarding claim 9, Ishikawa further teaches the step (b) is performed by a radio communication system controller (see column 7 lines 48-55).

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (US 5,666,655) in view of Segura et al (US 6,360,076).

Regarding claim 6, Ishikawa teaches a method as defined in claim 1. Ishikawa does not specifically disclose the communication statistic gathered in step (b) comprises the average received signal strength of each of the plurality of radios. Segura teaches the communication statistic gathered in step (b) comprises the average received signal strength of each of the plurality of radios (see column 4 lines 44-47 and see column 1 lines 19-21). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the teaching of Segura into the system of Ishikawa in order to provide a quality over-the-air multicast to a plurality of mobile terminals (see Segura column 1 lines 5-8).

4. Claims 8, 10-14, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (US 5,666,655) in view of Cook et al (US 6,389,284).

Regarding claim 8, Ishikawa teaches a method as defined in claim 1. Ishikawa does not specifically disclose the two or more groups of radios established in step (a) can access the radio communication system at specified times which are different for

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each of the two or more groups. Cook teaches the two or more groups of radios established in step (a) can access the radio communication system at specified times which are different for each of the two or more groups (see column 3 lines 12-15). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the teaching of Cook into the system of Ishikawa in order to provide wireless access while minimizing interference to other service providers (see Cook column 7 lines 13-15).

Regarding claim 10, the combination of Ishikawa and Cook further teaches a step (b) is performed by each of the plurality of radios (see Cook column 3 lines 12-15).

Regarding claim 11, Ishikawa teaches a method for accessing a radio communication system having a plurality of radios (see column 4 lines 54-57), comprising the steps of: (a) separating the plurality of radios into two or more groups (see column 22 lines 18-22), (b) gathering a communication statistic on the plurality of radios (see column 22 lines 18-22, in Ishikawa, the distances, the moving directions, and the moving speeds of the mobile station reads on applicant's **statistic**) and c) grouping of radios based on the communication statistic gathered in step (b) (see column 22 lines 18-22).

Ishikawa does not specifically disclose reconfiguring the grouping of radios. However, since the *distances, the moving directions, and the moving speeds of the mobile station* in the system of Ishikawa varies at time, it would have been obvious to one of the ordinary skill in the art to modify Ishikawa such that the group of mobile units

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are reconfiguring, so that the groups can be associated with the *changing distances, the moving directions, and the moving speeds of the mobile station.*

Ishikawa does not specifically disclose (d) allowing access to the radio communication system by each of the two or more groups of radios at different predetermined periods of time. Cook teaches (d) allowing access to the radio communication system by each of the two or more groups of radios at different predetermined periods of time (see column 3 lines 12-15). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the teaching of Cook into the system of Ishikawa in order to provide wireless access while minimizing interference to other service providers (see column 7 lines 13-15).

Regarding claim 12, the combination of Ishikawa and Cook teaches a method as defined in claim 11. The combination of Ishikawa and Cook does not specifically disclose the radio communication system comprises a time division multiple access radio communication system. However, the Examiner takes Official Notice that such time division multiple access radio communication system as recited in the claim are known in the art in order to save radio spectrum and permit many simultaneous conversations over a finite frequency. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Cook and Ishikawa for providing a method as claimed, in order to save radio spectrum and permit many simultaneous conversations over a finite frequency.

Regarding claim 13, Ishikawa teaches steps (b) and (c) are repeated periodically. Ishikawa inherently teaches repeating steps (b) through (d) periodically (see rejection of claim 1 above). Since *the distances, the moving directions, and the moving speeds of the mobile station* in the in system of Ishikawa varies at time, it would have been obvious to one of the ordinary skill in the art to modify Ishikawa such that repeating steps (b) through (d) periodically, so that the groups can be associated with the *changing distances, the moving directions, and the moving speeds of the mobile station* (see column 22 lines 18-22).

Regarding claim 14, Ishikawa further teaches the communication statistic in step (b) is gathered by a central radio communication system resource (see column 1 lines 22-32).

Regarding claim 16, Ishikawa further teaches the steps (b) and (c) are performed at predetermined periods of time (see column 4 lines 33-53).

Regarding claim 18, Ishikawa teaches the communication statistic gathered in step (b) comprises the changing distances, the moving directions, and the moving speeds of the mobile station by each of the plurality of radios (see column 22 lines 18-22). Ishikawa does not specifically disclose communication statistic gathered in step (b) comprises the talk-time by each of the plurality of radios. However, those skills in the art would have appreciated that the system of Ishikawa also be used with other statistic such as the talk-time associated with each of the plurality of radios. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was

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made to modify the teaching of Ishikawa, so that the communication statistic comprises more features.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (US 5,666,655) in view of Cook et al (US 6,389,284) and further in view of Raith (US 6,385,461).

Regarding claim 15, the combination of Ishikawa and Cook teaches a method as defined in claim 11. The combination of Ishikawa and Cook does not specifically disclose the communication statistic in step (b) is gathered by each of the plurality of radios. Raith teaches the communication statistic in step (b) is gathered by each of the plurality of radios (see column 2 lines 33-36 and lines 62-65). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the teaching of Raith into the system of Cook and Ishikawa in order to individual users with the opportunity to joint group calls at any time (see Raith column 2 lines 25-27).

Response to Arguments

6. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (703) 605-5164. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703) 308-6739. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Nghi H. Ly



March 13, 2003


3/17/03

NGUYEN T. VO
PRIMARY EXAMINER